

TIER Academic Affairs Response Plan

Iowa State University

January 29, 2016

Throughout the TIER efficiency study of academic processes, ISU fully engaged with the consultants to provide data and to develop a better understanding of how we can become more efficient in our academic processes. The TIER recommendations as articulated in the consultant's report to the Board were developed through discussions with the consultants spanning over a year. As a result, and in a collaboration among administration, the Faculty Senate, and various groups of faculty, staff, and students, we anticipated the general structure of the recommendations and already began to initiate and implement a number of strategies aligned with TIER: to enhance the efficiency of space utilization, to provide adequate course capacity, to improve student success, and to increase online distance education opportunities to meet the needs of lowans. This document, therefore, summarizes a combination of actions *already underway* at ISU in response to TIER, as well as responsive plans in the short- and longer-terms. We fully embrace the need to become more efficient and effective, and are implementing a comprehensive approach that engages stakeholders and utilizes their expertise.

This report is organized with four sections (resource efficiency, course accessibility and efficiency, enrollment management, e-learning), as indicated in the Board's charge. Within each section, we outline multiple examples of what we have already initiated in response to TIER to get a head-start, what we will do this spring, and what we plan to do thereafter with the expectation that we report back in June 2016 regarding spring initiatives and next academic year regarding progress and plans related to long term initiatives.

1. Resource Efficiency

To ensure that instructional resources are wisely and appropriately deployed at Iowa State, we initiated with an external architectural consultant, and have already completed, a comprehensive Classroom Improvement Planning Study encompassing all 214 of our general university classrooms (see appendix for summary of recommendations). This study provides a multiyear roadmap to optimize classroom resources, to support innovative and efficient pedagogical approaches, and to invest strategically in renovating and best deploying ISU's aging stock of classrooms. In addition, disaggregated space utilization metrics were developed and analyzed to identify areas where we can further improve room utilization. The leadership for improvements in this area will be the responsibility of the Course Availability Group and the Room Scheduling Team.

Examples of actions recently implemented or already in progress

- Analyzed classroom, teaching lab, and seminar room utilization twice per year
- Included in the analysis evening classroom usage for courses and special events
 - The data indicate that, in response to increased enrollment, we are now scheduling 350 courses in teaching labs either before 7:00 AM, or into the evening hours, thus increasing space utilization
 - Classroom use for special events after normal business hours has increased by 30% in the past year, again improving space utilization

- Focused course projection work on meeting the needs of ISU's expanding undergraduate student enrollment by proactively forecasting demand and scheduling classrooms
- Prioritized and established funding for classroom and instructional technology improvements on the basis of the Classroom Improvement Study, metrics, and forecasting
- Initiated multiple classroom improvement projects, prioritizing classrooms accommodating 75-100 students
- Funded and began major renovation of classrooms in Pearson Hall (the first major element of the Classroom Improvement Study) to address capacity, pedagogy, technology, and infrastructure
- Distributed departmental room utilization information with College Deans and Department Chairs to build a culture of efficient space utilization and identify opportunities for usage improvements
- Converted underutilized space to address unmet classroom needs. For instance, we built-out a new active learning classroom in the University Library to accommodate teaching classes of 100 students. The space is used for classroom instruction between the hours 8AM-2PM, and for open student study space (as is typical in the Library) from 2PM-2AM.

Examples of additional actions and initiatives during Spring 2016

- Engage the Faculty Senate and other key stakeholders in designing classrooms to facilitate the use of new teaching and learning technologies
- Review the use of departmentally-managed instructional spaces to determine if those rooms are appropriate for general instruction, and thereby, realize improved utilization
- Renovate space in Hamilton Hall (academic space that was recently vacated as a result of the university's partnership with the Campustown redevelopment project) to create two additional general university classrooms

Examples of long term actions and initiatives beyond Spring 2016

- Further implement data analytics to ensure that course enrollment and classroom capacity are closely matched
- Systematically expand reporting and analysis to optimize classroom use (for instance, to account for one-day offerings, or off-grid scheduling) and to reduce utilization barriers caused by non-standard scheduling
- Collaborate with the Faculty Senate to review current room scheduling practices and policies
- Develop appropriately-sized classrooms to match trends in demand

2. Course Accessibility and Efficiency

As reported-out to the Academic and Student Affairs Committee, we continuously project and monitor enrollments, and adjust our course offerings accordingly, by using fairly sophisticated predictive models. This approach has proven effective, over the past decade, to ensure we provide adequate capacity in all required courses, so that a student's progress to graduation is not impeded by lack of course availability while at the same time substantially reducing offerings of under-enrolled courses. University-level aggregated metrics (as recommended by the efficiency study) would in fact be less accurate than our predictive model, and inadequate to enhance the efficiency of course offerings. Our efficiency implementation plan therefore focuses on refining and developing the more accurate disaggregated metrics at the course or program levels. Several effective strategies are already in place as a result of managing the course capacity needs associated with recent enrollment growth. The leadership for improvements in this area will be the responsibility of the Course Availability Group.

Examples of actions recently implemented or already in progress

- Established and chartered the Course Availability Group with representation from the Provost's office, academic colleges, room scheduling, facilities, information technology, and the Registrar's office to focus specifically on issues related to course availability and capacity. The CAG is led from the Provost's office, and has decision-making authority to open and close class sections based on demand, and to assign those sections to rooms in order to optimize space utilization.
- Began using data-based, predictive models for enrollment in required or gateway first-year courses to ensure that entering students are able to make solid academic progress in their first year
- Extended our course capacity predictive model to include required courses in the second year and beyond, so that progress toward degree after the first year is also not impeded by irregularities in course availability
- Communicated from the Provost's office the expectation that undergraduate course sections will have a minimum enrollment of 18 students, except in unusual circumstances (currently less than 5% of sections have fewer than 18 students – we expect this percentage to continue to decline)

Examples of additional actions and initiatives during Spring 2016

- Broadly communicate the charge and scope of the Course Availability Group
- Direct CAG to focus on defining more efficient and effective policies and practices for scheduling courses
- Develop disaggregated course offering metrics that better characterize and address courses with unmet demand, courses with larger than necessary capacity, and courses for which there may be better patterns of offering from semester to semester to meet student needs and to enable more efficient classroom and faculty utilization
- Collaborate with the Faculty Senate to develop and refine policies and practices pertaining to the approval and enforcement of course prerequisites

Examples of long term actions and initiatives beyond Spring 2016

- Explore the integration of automated prerequisite enforcement into the registration process as part of the expected new student information system software
- Examine developing "academic progress dashboards" with information available to students, advisors, and staff at the time of registration in order to improve tracking and understanding of a student's progress toward degree
- Investigate the integration of degree audit functionality, course capacity predictive analytics, and course offering functionality in the new student information system software
- Investigate the integration of course offering and classroom assignment functionalities in the new enterprise software system

3. Enrollment Management

Current levels of centrally-provided academic and student support services are regularly evaluated by ISU's academic and student affairs divisions, the Student Success Council, and the Undergraduate Programs Council. Needs are identified and proposed for implementation during our annual budget process. The Student Success Council coordinates and evaluates student success initiatives across

campus. Comparative retention and persistence data from a yearly national survey conducted by ACT illustrates that ISU fares well when compared to other US four-year public institutions having a similar level of selectivity and a similar set of academic programs and degrees offered. Those institutions reported a first-to-second year retention rate of 82.9%, compared to Iowa State's retention rate of 87.1%. The reported six-year persistence to degree rate for those similar institutions is 62.4%, compared to ISU's six-year persistence rate of 65.8%. While ISU does not currently employ a one-stop center, we do provide a Student Answer Center to answer questions and facilitate solutions relating to university programs and services. Staff provide answers to basic enrollment-related questions, among many other topics. The leadership for improvements in this area will be the responsibility of the Student Success Council.

Examples of actions recently implemented or already in progress

- Increased staff in the Student Counseling Center
- Increased the number of academic advisors in every college
- Increased staffing and resources allocated to multiple areas of academic and student support services (e.g., Supplemental Instruction, Learning Community peer mentors, Career Services, Honors Program, and Program for Women in Science and Engineering)
- Participated in the University Innovation Alliance which provides opportunities to share and implement best practices in student success from leading national public research institutions
- Continued to refine our comprehensive learning communities program
- Increased Supplemental Instruction opportunities for students in key and challenging gateway courses
- Refined first-year experiences courses in academic departments across the university
- Enhanced Academic Help Rooms and Resource Centers
- Implemented a summer bridge program called Academic Program for Excellence to support the success of traditionally underrepresented students
- Increased Academic Success Center programming such as tutor services and academic coaching
- Continuously improved services to support the learning needs of special populations (e.g., veteran, multicultural, LGBT, international, and low-income students)
- Refined data analytics to promote student success (e.g., MapWorks student assessment, new students, students having less than 2.0 GPA)
- Pilot tested in every academic college the Educational Advisory Board Student Success Collaborative (EAB-SSC) tools for data-driven, technology rich, academic advising and degree planning

Examples of additional actions and initiatives during Spring 2016

- Evaluate programs, services, and staffing for the International Students and Scholars Office
- Benchmark and review the Student Answer Center, and explore the feasibility of a one-stop center (based on approaches of institutions similar to ISU) and how the concept could be implemented at ISU
- Completion of an inventory and assessment of all student success initiatives

Examples of additional actions and initiatives beyond Spring 2016

- Continue to increase staff in the Student Counseling Center (until appropriate ratios are reached)

- Continue to increase the number of academic advisors in every college (until appropriate ratios are reached)
- Conduct a comprehensive review of Student Counseling
- Review tutoring resources and identify space needs to enhance services
- Expand and integrate the use of data analytics through full campus implementation of EAB-SSC in Fall 2016
- Implement the First In The World Grant to improve academic success of low-income and first generation students
- Expand MapWorks methodology beyond first-year students
- Review data to develop strategies to address gaps in success rates for multicultural, international, and veteran students

4. e-Learning

At ISU, online credit course, certificate, and degree offerings are offered by the academic departments and colleges that are responsible for the on-campus face-to-face versions of those courses. Our approach has focused on instructional quality, and ensuring that online courses are typically taught by the same faculty who teach the face-to-face versions of the courses (which is not the case at all institutions). We have made a sustained effort, recognized by the consultants, to ensure that the quality of all credit courses that are offered is at the same high standard regardless of the delivery mode or audience. New online offerings for off-campus students have been created in response to evidence of sustained unmet demand by students and from employers. Online offerings for residential students have been scheduled in response to demand/capacity issues or pedagogical innovations such as flipped or hybrid instruction. The leadership for improvements in this area will be the responsibility of the new position being created within the Provost's Office.

Examples of actions recently implemented or already in progress

- Established an Online Learning Innovation Hub within ISU's Center for Excellence in Learning and Teaching to foster the improvement of online classes and to provide faculty with the technical expertise needed to teach online
- Funded the President's Flipped Classroom Initiative and 22 projects spanning 25 academic departments, and over 60 faculty members to develop high quality flipped classroom learning experiences. This initiative led to the redesign of over 80 courses and will benefit 12,000 students during the 2015 – 2016 academic year
- Implemented the Quality Matters program for assessing and improving the quality of online courses
- Offered and marketed through the College of Liberal Arts and Sciences a coordinated package of online courses during Summer 2016. This bundle includes 30 high demand, high volume, core courses taken by students from across the university. It will improve year-round utilization of facilities and staff, and help students to stay on-track for graduation.

Examples of additional actions and initiatives during Spring 2016

- Refine the scope and activities of the Online Learning Innovation Hub including the appointment of a new CELT Associate Director for Online Learning

- Create a new position in the Provost's office specifically to coordinate distance and online education, to develop programs, to collaborate across colleges and institutions, and to better market our distance education programs in Iowa and beyond
- Pilot a new online course sharing program among Regents universities for Fall 2016
- Collaborate via State Extended Continuing and Distance Education Council (SECDEC) with the Regents universities to systematically inventory fully online degree and certificate programs, and identify "nearly" fully online programs that are viable candidates for migration to a fully online format

Examples of long term actions and initiatives beyond Spring 2016

- Continue to focus on high quality online for-credit education that is responsive to needs of students
- Complete implementation of Quality Matters and other efforts to improve the online learning experience for students, from both the academic and student services perspectives
- Continue to develop and refine SECDEC as the coordinating body for online education development and delivery by the Regents' universities to develop additional online offerings that meet the needs of the people of Iowa and beyond
- Explore the further development of policies, practices, and software solutions that enable effective and efficient course sharing access to online courses offered by Regents' universities
- Explore processes to better account for revenue and costs attributed to distance learning activities

TIER Academic Affairs Response Plan Appendices

Room Scheduling Team

- Katie Baumgarn, Coordinator of Instructional Facilities
- Tina Thompson, Program Coordinator, Room Scheduling
- Alesha Magee, Program Coordinator, Room Scheduling

Course Availability Group

- David Acker, Associate Dean, College of Agriculture and Life Sciences
- Claire Andreasen, Associate Dean, College of Veterinary Medicine
- Katie Baumgarn, Coordinator of Instructional Facilities, Room Scheduling
- Diann Burreight, Director, Undergraduate Programs, College of Business
- Paul Castleberry, Student Services Specialist, College of Engineering
- Jonathan Compton, Senior Research Analyst, Office of the Registrar
- Laura Doering, Registrar
- Arne Hallam, Associate Dean, College of Liberal Arts and Sciences
- David Holger, Associate Provost for Academic Programs and Dean of the Graduate College
- Jane Jacobson, Program Director, Student Services, College of Liberal Arts and Sciences
- Joel Johnson, Program Director, Student Services, College of Engineering
- Liz Kurt, Director, New Student Programs
- Sarah Wilson, Program Manager, Student Services, College of Human Sciences
- Katharine Suski, Director of Admissions
- Tom Polito, Student Services Director, College of Agriculture and Life Sciences
- Michelle Rasmussen, Student Services Director, College of Design
- John Wageman, Student Services Specialist, College of Business
- Susan Rhoades, Director, Academic Success Center, Dean of Students Office
- Keith Robinder, Interim Dean of Students
- Diane Rupp, Associate Registrar
- Shawna Saad, Assistant Registrar
- Amy Slagell, Associate Dean, College of Liberal Arts and Sciences
- Margie Tabor, Assistant Director, Space Planning and Management
- Tina Thompson, Program Coordinator, Room Scheduling
- Charley Turner, Student Services Specialist, College of Agriculture and Life Sciences,
- Karen Zunkel, Director for Undergraduate Programs and Academic Quality, Office of the Senior Vice President and Provost
- Kathleen Gillon, University Innovation Alliance Fellow

Student Success Council

- Jonathan Compton, Senior Research Analyst, Office of the Registrar
- Mary Darrow, Postdoc Research Associate
- Laura Doering, Registrar

- Pete Englin, Director, Department of Residence
- Jane Jacobson, Program Director, Student Services, College of Liberal Arts and Sciences
- Martino Harmon, Associate Vice President, Student Affairs
- David Holger, Associate Provost for Academic Programs and Dean of the Graduate College
- Roberta Johnson, Director, Financial Aid
- Diane Rover, University Professor, Electrical and Computer Engineering
- Amy Slagell, Associate Dean, College of Liberal Arts and Sciences
- Debra Sanborn, Director of Hixson Scholars Program, Dean of Students Office
- Karen Zunkel, Director for Undergraduate Programs and Academic Quality, Office of the Senior Vice President and Provost
- Kenyatta Shamburger, Program Coordinator Multicultural Student Affairs
- Kathleen Gillon, University Innovation Alliance Fellow
- Keith Robinder, Interim Dean of Students
- Kelsey Smyth, Academic Advising Coordinator

Summary of Recommendations from Classroom Improvement Planning Study

Based on the insight gained from observation, assessment and focus group meetings, the following recommendations are provided as a summary Classroom Improvement Study Report:

- Strategically plan to upgrade all general university classrooms on a regular 10-year cycle. A phasing plan has been developed to provide one method of developing this cycle.
- Fund multiple large-scale classroom improvement projects across campus. Prioritize 75-150 capacity classrooms, which are the most utilized and most in demand for scheduling.
- Promote conversation between faculty and the administration on pedagogy. Diversity and flexibility increase the quality of the learning experience on campus.
- Actively plan for general university classrooms in future capital projects.
- Improve information-sharing within the classroom by developing a help-desk for on-call, real-time assistance; develop a system to communicate improvements and classroom design guidelines.
- Implement technological upgrades throughout all of the general university classrooms to allow for flexible student learning opportunities.
- Utilize tools developed through this study to strategically plan future projects to provide the most value to the University.
- Promote collaboration throughout campus by actively programming space outside of the classroom for informal discussion and student/faculty interaction. Create additional work and study nodes outside of the classroom for small group work and conversation.
- Significantly reduce back-to-back scheduling - develop a culture of matching appropriate classrooms with class sizes and instructional methods.